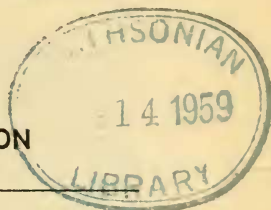


PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON



A SYNOPSIS OF THE OSTRACOD (CRUSTACEA)  
GENUS *CYPRIDOPSIS* WITH THE DESCRIPTIION  
OF A NEW SPECIES<sup>1</sup>

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Brady (1867) established the genus *Cypridopsis* and designated *Cypridopsis vidua* (= *Cypris vidua* O. F. Müller 1776) the type species. The genus includes ostracods of the family Cypridae that have the following description: Shell high, tumid; valves approximately the same size; natatory setae of both antennae well developed; terminal podomere of the maxillary palp longer than wide; furca reduced to a base, tapering distally to a seta.

Brady and Norman (1896) proposed the genus *Pionocypris* for ostracods with the left valve larger than the right, but otherwise essentially similar in general morphology to members of the genus *Cypridopsis*. They designated *C. vidua* the genotype of the new genus *Pionocypris* and restricted the genus *Cypridopsis* to individuals having the right valve longer than the left. The literature contains instances in which *Pionocypris* has been confused through misspelling with *Prionocypris* Brady and Norman 1896.

The genus *Pionocypris* is of questionable validity. An examination of the sketches and a review of the descriptions of the species of *Pionocypris* suggest that they may properly be assigned to the genus *Cypridopsis*. In view of the foregoing it is proposed that *Pionocypris* Brady and Norman 1896 be absorbed into the older genus *Cypridopsis* Brady 1867.

Representatives of the genus *Cypridopsis* are widely distributed. Of the forty two species listed in this paper, twenty one have type localities in Africa, eleven are from North America, and five have been described from Europe. Several of the species reported by Sars (1924a) from Africa, and the South American species described by Sars (1901) were transported in dried mud to Sweden where they were cultured in aquaria.

<sup>1</sup>Acknowledgment is made of the assistance of Miss Alice Boatright, Staff Artist, Department of Zoology, University of Illinois, who prepared the drawings, and of Mrs. Corinne A. Ferguson who prepared specimens for study.

Members of the genus range in length from 0.35 mm. for *C. yucatanensis* Furtos 1938, probably the smallest freshwater ostracod known, to 0.90 mm. for *C. aldabrae* Müller 1898. Apparently all members of the genus are free-living. However, Deschiens, Lamy and Lamy (1953) report that *C. hartwigi* Müller 1900 has been observed preying upon snails of the species *Bullinus contortus* Michaud 1829 and *Planorbis glabratus* Say 1828.

Wherever possible the length, height, and color of the valves and the geographical distribution have been recorded for a species. There are numerous instances in which investigators neglected to give full descriptions of their species. Indeed, the scanty morphological characteristics upon which several species of *Cypridopsis* have been established may reasonably lead to some doubt as to their validity.

## SPECIES OF CYPRIDOPSIS

- C. aculeata* (Costa 1852)  
*Size:* Length of female 0.72 mm. Males unknown.  
*Color:* Dark bluish-green.  
*Distribution:* Europe, Iceland, Central Asia, Africa.
- C. aldabrae* Müller 1898  
*Size:* Length of female 0.90 mm. Males smaller than females.  
*Color:* Not recorded.  
*Distribution:* Aldabra, East Africa; Southwest Africa.
- C. brevis* Sars 1924a  
*Size:* Length of female 0.50 mm. Males unknown.  
*Color:* Bright emerald green.  
*Distribution:* Bergvliet Flats, South Africa. Cultured in an aquarium from dried mud.
- C. brevisetosa* Klie 1943  
*Size:* Length of female 0.70 mm; height 0.35 mm. Length of male 0.63 mm; height 0.34 mm.  
*Color:* Bright green in region of adductor muscles; ends and ventral margin are yellowish-brown.  
*Distribution:* Morocco.
- C. clavata* Sars 1924a  
*Size:* Length of female 0.78 mm. Males unknown.  
*Color:* Not recorded.  
*Distribution:* South Africa.
- C. dadayi* Mehes 1913  
*Size:* Length of female 0.58 mm; height 0.32 mm. Males unknown.  
*Color:* Brownish-green.  
*Distribution:* Bogota, Colombia.
- C. echinata* Müller 1909  
*Size:* Length of female 0.72 mm. Males unknown.  
*Color:* Dark green.  
*Distribution:* South Africa.

- C. elizabethan* Sars 1924a  
*Size*: Length of female 0.70 mm. Males present, but less numerous than females.  
*Color*: Light yellowish-green with patches of darker hue in dorsal region.  
*Distribution*: South Africa. Cultured in an aquarium from dried mud.
- C. flavescens* Sars 1901  
*Size*: Length of female 0.63 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: Argentina. Cultured in aquarium from dried mud.
- C. fuhrmani* Mehes 1913  
*Size*: Length of female 0.68 mm; height 0.41 mm. Males unknown.  
*Color*: Greenish-yellow.  
*Distribution*: Bogota, Colombia; Argentina.
- C. glabrata* Sars 1924a  
*Size*: Length of female 0.87 mm. Males smaller than females.  
*Color*: Dark olivaceous.  
*Distribution*: South Africa. Cultured in an aquarium from dried mud.
- C. gregarina* Sars 1924a (= *C. triquetra* G. W. Müller)  
*Size*: Length of female 0.80 mm. "Male of somewhat smaller size."  
*Color*: Dark brownish-green.  
*Distribution*: Union of South Africa.
- C. hartwigi* Müller 1900  
*Size*: Length of female 0.80 mm. Males unknown.  
*Color*: Slate gray.  
*Distribution*: Germany; Morocco.
- C. helvetica* Kaufman 1892  
*Size*: Length of female 0.62 mm; height 0.40 mm. Males unknown.  
*Color*: Green with three darker bands, the middle one imperfectly developed.  
*Distribution*: Switzerland.
- C. hirsuta* Sars 1924a  
*Size*: Length of female 0.80 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: South Africa.
- C. inaudita* Furtos 1936a  
*Size*: Length of female 0.72 mm; height 0.40 mm. Males unknown.  
*Color*: The color had been destroyed by a preservative.  
*Distribution*: Yucatan.
- C. lusatica* Schäfer 1943  
*Size*: Length of female 0.64 mm; height 0.33 mm. Male unknown.  
*Color*: Yellowish-brown.  
*Distribution*: Morocco.

- C. mexicana* Furtos 1938  
*Size:* Length of female 0.35-0.38 mm; height 0.25-0.26 mm. Males unknown.  
*Color:* "Undetermined due to action of preservatives on pigments."  
*Distribution:* Yucatan.
- C. musquizensis* Tressler 1954  
*Size:* Length of female 0.70 mm; height 0.44 mm. Length of male 0.62 mm; height 0.41 mm.  
*Color:* Not recorded.  
*Distribution:* Texas.
- C. niagraensis* Furtos 1936a  
*Size:* Length of female 0.58 mm; height 0.35 mm. Males unknown.  
*Color:* "Three dorso-lateral bands of dark hue."  
*Distribution:* Yucatan.
- C. obscura* Sars 1901  
*Size:* Length of female 0.70 mm. Males unknown.  
*Color:* Dark green with darker shadows, but without well formed bands.  
*Distribution:* Argentina. Cultured in an aquarium from dried mud.
- C. ochracea* Sars 1924a  
*Size:* Length of female 0.78 mm. Males unknown.  
*Color:* Pale yellow.  
*Distribution:* South Africa.
- C. okeechobei* Furtos 1936b  
*Size:* Length of female 0.64 mm; height 0.40 mm. Length of male 0.58 mm; height 0.37 mm.  
*Color:* Light yellow with three dark-green dorso-lateral bands.  
*Distribution:* Florida.
- C. phantomensis* Tressler 1954  
*Size:* Length of male 0.64 mm; height 0.44 mm. Females not observed.  
*Color:* Not recorded.  
*Distribution:* Texas.
- C. pincta* (Strauss 1821)  
*Size:* Length of female 0.60 mm. Males unknown.  
*Color:* Green with three lateral gray bands.  
*Distribution:* France.
- C. pinguis* Sars 1901  
*Size:* Length of female 0.80 mm. Males unknown.  
*Color:* Not recorded.  
*Distribution:* Argentina. Cultured in an aquarium from dried mud.
- C. potamis* Tressler 1954  
*Size:* Length of female 0.60 mm; height 0.40 mm. Males unknown.  
*Color:* Not recorded.  
*Distribution:* Texas.

- C. punctata* Sars 1924b  
*Size*: Length of female 0.70 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: Southwest Africa.
- C. pygmaea* Sars 1924a  
*Size*: Length of female 0.45 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: South Africa. Cultured in an aquarium from dried mud.
- C. pyramidata* Sars 1924a  
*Size*: Length of female 0.59 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: South Africa.
- C. reniformis* Sars 1924a  
*Size*: Length of female 0.80 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: South Africa.
- C. rhomboidea* Furtos 1936a  
*Size*: Length of female 0.68 mm; height 0.40 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: Yucatan.
- C. spinifera* Sars 1924a  
*Size*: Length of female 0.80 mm. Males present, but in smaller numbers than females.  
*Color*: Dark green.  
*Distribution*: Union of South Africa.
- C. striolata* Sars 1924a  
*Size*: Length of female 0.54 mm. Males unknown.  
*Color*: Dark Green.  
*Distribution*: Cultured in an aquarium from dried mud. South Africa.
- C. tonsa* Sars 1924a  
*Size*: Length of female 0.78 mm. Males unknown.  
*Color*: Not recorded.  
*Distribution*: South Africa.
- C. toyensis* Tressler 1954  
*Size*: Length of female 0.61 mm; height 0.34 mm. Males unknown.  
*Color*: Reddish-brown.  
*Distribution*: Texas.
- C. trigonella* Sars 1924a  
*Size*: Length of female 0.63 mm. Males unknown.  
*Color*: Light green with a distinct orange tinge on posterior portion of shell; the orange color is due to ripe ova.  
*Distribution*: South Africa. Cultured in an aquarium from dried mud.
- C. tumidula* Sars 1924a  
*Size*: Length of female 0.58 mm; length of male 0.50 mm.



*Color*: Not recorded.

*Distribution*: South Africa. Cultured in an aquarium from dried mud.

*C. vidua* (O. F. Müller 1776) Brady 1867

*Size*: Length of female 0.64-0.72 mm; height 0.40-0.45 mm. Males unknown.

*Color*: Ground color green or white with dark green or black transverse bands.

*Distribution*: Common throughout the Holarctic region, and also reported from the Neotropical.

*C. viduella* Sars 1896

*Size*: Length of female 0.60 mm; height 0.30 mm. Males unknown.

*Color*: Not recorded.

*Distribution*: Africa; Yucatan.

*C. yucatanensis* Furtos 1936a

*Size*: Length of female 0.35 mm; height 0.25 mm. "Males slightly smaller than females."

*Color*: Destroyed by preservative.

*Distribution*: Yucatan.

*Cypridopsis canadensis*, n. sp.

Figs. 1-4.

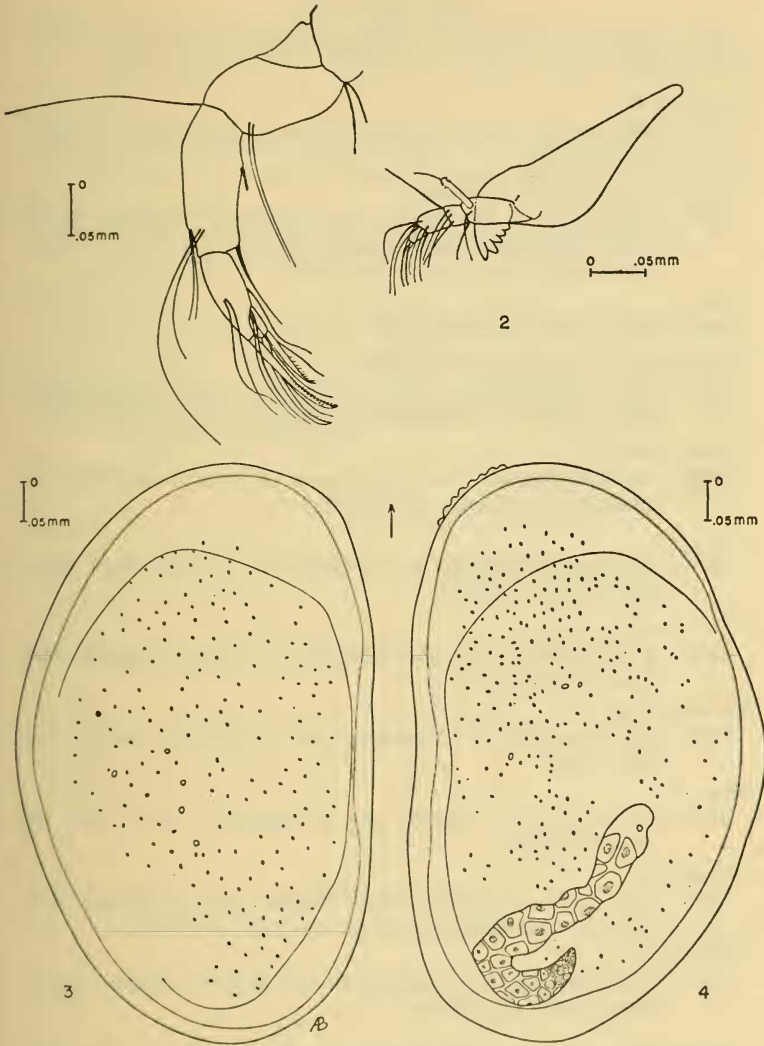
Specific characters.—*Female*. Shell ovoid, tumid; height approximately three-fifths of the length; greatest height at or near the middle. Dorsal margin of the left valve evenly arched, ventral margin almost straight; anterior and posterior extremities broadly rounded. Dorsal margin of the right valve with sinuations anterior and posterior to the middle; extremities rounded; antero-ventral margin serrated; ventral margin slightly sinuated. Surfaces of valves with short hairs and puncta; submarginal line considerably removed from anterior extremity. Color gray, without transverse bands. Length 0.76 mm., height 0.46-0.47 mm. Natatory setae of second antennae barely reaching the tips of the end-claws. The proximal podomere of the mandibular palp with a distinctive seta-bearing club.

*Male*.—Unknown.

*Remarks*.—The size, color, and shape of the valves, and the peculiar seta-bearing club of the mandibular palp constitute a group of characters that serve to distinguish *Cypridopsis canadensis* n. sp. from all other members of the genus.

*Type locality*.—*C. canadensis* n. sp. was collected by Dr. Richard W. Coleman on August 14, 1957 from a pool near Coop Petroleum Products, Southey, Saskatchewan, Canada.

*Type specimens*. A stained microscopic mount of the holotype female and one paratype female preserved in ethyl alcohol are deposited in the United States National Museum. Catalogue numbers are for the holotype USNM 102576 and for the paratype USNM 102577.



PLATE

*Cypridopsis canadensis* n. sp.—Drawings were made from a specimen stained with a 1% alcoholic solution of eosin Y and mounted in Canada balsam.

Fig. 1. Antepenultimate, penultimate, and ultimate podomeres of second antenna.

Fig. 2. Mandible with mandibular palp.

Fig. 3. Mesial view of left valve.

Fig. 4. Mesial view of right valve with ovary.

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